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Labour Market Intentions of Graduating Students from Post-Secondary Institutions in Northwestern Ontario by Susan Allemang

Ontario Ministry of Labour

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MI

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PREFACE

The Northwestern Ontario Manpower Adjustment Study was undertaken by the Research Branch of the Ontario Ministry of Labour as one of the projects for the Canada/Ontario Interim Northlands Subsidiary Agreement under the General Development Agreement. The funds for this project were provided by Employment and Immigration Canada and by the Ontario Regional Priority Budget.

The objective of the Study is to provide information required for the development of policies and programmes designed to relieve structural imbalances in the labour market in Northwestern Ontario. The Study comprises ten component projects dealing with labour supply, labour demand, turnover and absenteeism, migration, and the labour market intentions of graduating students. A complete list of these projects appears inside the back cover.

The present report, "Labour Market Intentions of Graduating Students from Post-Secondary Institutions in Northwestern Ontario," examines the relationship between the programmes of study and the occupational preferences of students graduating from post-secondary educational institutions in Northwestern Ontario. The opinions expressed in this report are those of the author only, and do not reflect the official views of the Ontario Ministry of Labour, Employment and Immigration Canada, the Ontario Ministry of Treasury, Economics and Intergovernmental Affairs, or the Department of Regional Economic Expansion.

We would like to take this opportunity to thank the many individuals and organisations who helped us to complete this Study. Thanks are due to Employment and Immigration Canada and to the Ontario Regional Priority Budget, whose financial support made the Study possible. We also thank Dr. L. O. Stone, Professor Noah M. Meltz, and Professor C. A. Jecchinis; the members of the Committee On Getting and Holding Manpower in Northwestern Ontario; and Mr. Cliff McIntosh and Mr. Bob Michels of the Quetico Centre, all of whom helped during the planning stages of the Study. For supplying data indispensable to our research we thank the staff at Lakehead University and Confederation College; the Boards of Education in the Districts of Thunder Bay, Rainy River, and Kenora; and the employers and other persons too numerous to name whose contributions assisted us immeasurably. For cooperation and perseverance which facilitated our work we are indebted to many officials in both the Federal and Provincial Governments, and especially to the members of the Federal-Provincial Management Committee for the Interim Northlands Subsidiary Agreement. We are indebted as well to Mr. Michael Ryval and Mr. Charles Bogue, who edited the drafts of these reports for publication, and to the many persons on the clerical and secretarial staff of the Ontario Ministry of Labour whose assistance made it possible to complete these reports. For their encouragement and support we thank Mr. John Kinley and Mr. M. Skolnik, who were the Directors of the Research Branch at the Ontario Ministry of Labour while this Study was in progress, and Mr. G. S. Swartz, the current Director of the Branch. Finally, special thanks go to the author of the present report, Ms. Susan Allemang, and to Mr. G. Sabir Shakeel, under whose supervision this report was prepared.

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CHAPTER I

INTRODUCTION

The education sector is an important source of labour supply in Northwestern Ontario as it is elsewhere. Data from this sector have therefore been collected for the Northwestern Ontario Manpower Adjustment Study in order to accomplish three objectives: 1) to find out what correlation exists between the programmes of study and the occupational choices of students graduating from post-secondary institutions in Northwestern Ontario; 1 2) to estimate the enrolment, dropouts, and graduates that can be expected in the Region's educational system until 1981; 2 and 3) to project additions to the supply of labour in the Region by occupation until 1981.

The present report is concerned only with the first of these objectives. It is based on a survey administered to 916 students who expected to graduate from Lakehead University and from Confederation College of Applied Arts and Technology in the spring of 1977. The methodology used in the survey is outlined in Chapter II. The general characteristics of graduating students at these institutions are described in Chapter III, and their intended occupations, industries, and job locations are set forth statistically in Chapter IV. A brief summary of the findings and some comments on their implications are presented in Chapter V.

^{1&}quot;Northwestern Ontario" refers to the Northwestern Ontario Economic Region, defined by P. Camu, E. P. Weeks, and Z. W. Sametz in Economic Geography of Canada (Toronto: Macmillan, 1964), and recognised by the Ontario Ministry of Treasury, Economics, and Intergovernmental Affairs as one of its five Planning Regions for the Province of Ontario. Unless otherwise specified, the term "Region" as used in this report is synonymous with the above geographical designation.

See Saeed Quazi, Aribert Kleist, and John Holland, <u>Projections of Enrolment and Graduations from Secondary and Post-Secondary Institutions in Northwestern Ontario, to 1981</u>, Northwestern Ontario Manpower Adjustment Study, no. 3 (1978).

³Frank A. Edwards, <u>Projections of Labour Supply by Occupation in Northwestern Ontario</u>, to 1981, Northwestern Ontario Manpower Adjustment Study, no. 2 (1978). This is a comprehensive discussion of labour supply in the Region, which uses data obtained in both the present study and that by Quazi, Kleist, and Holland.

⁴A graduating student was defined for the purpose of this study as a student who was enrolled either full-time or part-time when the survey was taken, and who will have sufficient credits to graduate in the Spring of 1977.

CHAPTER II

METHODOLOGY

For the purpose of clarity, the discussion of methodology has been divided into three parts: The sample, The questionnaire, and Survey procedure.

1. The sample

The population for this survey consisted of all students graduating in the spring of 1977 from the two post-secondary schools in Northwestern Ontario, Lakehead University and Confederation College of Applied Arts and Technology. Since both the University and the College are located in the city of Thunder Bay, it was decided that the researchers should canvass the entire population of graduating students, and not merely a selected sample.

Although a majority of the graduating students were located, problems encountered in administering the Survey made it impossible to reach the entire population. Confederation College presented little difficulty because the classroom survey procedure was well-suited to it (see <u>Survey procedure</u>, p. 4). The data for this institution represent all programmes from which students were expected to graduate, and exclude only those students who were absent on the day the survey was administered. Data from Lakehead University are less complete. Although the classroom survey was successful in gathering data for students graduating from most programmes, it could not be used to canvass those graduating from the Faculty of Arts and Science. Questionnaires for these students were therefore left at the University for inclusion in the students' "graduation packages" in the hope that they would be returned by mail. The response was poor, however, so that the data for graduates from Arts and Science programmes at Lakehead University are not complete.

In all, 1633 students graduated from post-secondary institutions in Northwestern Ontario in the spring of 1977, 1129 from Lakehead University, and 504 from Confederation College. The total number of completed questionnaires obtained from the survey was 916, 477 from the University, and 439 from the College. The rate of return for the survey as a whole was therefore 56.1%; for Lakehead University alone it was 42.2%, and for the College, 87.1%.

2. The questionnaire

The questionnaire was designed to find out whether or not graduating students would become part of the labour supply in Northwestern Ontario during the fall of 1977. It asked whether the student intended to continue his education, and if so, where, or whether he intended to seek employment, and if so, where. The questionnaire was composed mainly of fixed-alternative questions, although open-ended questions were used where more detailed information or explanations were desired. The form of the questionnaire used at each school was the same, differing only in the academic programmes listed in Section A (see questionnaire, Appendix B, pp.24-7). Both lists were compiled from the schools' latest available calendars (1976-1977) and were verified by each school.

The questionnaire itself consisted of four sections: A. General Information, B. Future Plans, C. Choice of Programme Study, and D. Occupational Choice. Section A asked for background and demographic data, such as sex, age, marital status, place of birth, citizenship, and programme of study. The respondent was also asked to give his name so that he could be located in the event that a follow-up study should be undertaken; confidentiality was of course strictly observed in the use of this information. For the purposes of analysis, code numbers were assigned to each questionnaire.

Section B was concerned with the respondent's plans after graduation. In order to separate summer activities, which are only temporary or short-term, from the more permanent or full-time activities, the time following graduation was divided into two periods: that immediately after graduation (May 1977 to August 1977), and that during the next academic year (September 1977 to June 1978).

Section C was concerned with the graduating student's original reasons for choosing his programme of study. This information shows what criteria the student used when he chose his academic field, and who, if anyone, influenced this choice. Did the student choose his programme in a hit-or-miss fashion, or did he select it knowingly? Was his programme chosen for its future employment opportunities, or because it offered him personal satisfaction? Or was further study simply the only alternative to being unemployed?

Section D asked for the occupations and industries that students wanted to enter, and the geographical locations in which they expected to enter them. Occupations were defined according to the Canadian Classification and Dictionary of Occupations (1971), and industries were defined according to the Standard Industrial Classification Manual (1970). Examples of occupational and industrial classifications were provided so that graduates could tailor their responses to the definitions used in the survey. Although the data for occupations and industries were originally collected at the three-digit level, they were later aggregated to the Major Group level for occupation and the Division level for industry, because frequencies tended to be small at the three-digit level, and broader categories were thought to be more useful for analysis.

Expected job locations were clustered in order to concentrate the data for analysis. The clusters are: Within Northwestern Ontario, Other Ontario, Western Provinces (Manitoba, Saskatchewan, Alberta, and British Columbia), Northern Canada (the Yukon and Northwest Territories), Quebec, Atlantic Provinces (Newfoundland, Prince Edward Island, Nova Scotia, and New Brunswick), Outside Canada, and Wherever I Can Find a Job.

This system places all occupations in categories ranging from the most general to the most specific. The three highest levels of classification, in descending order, are Major Groups, Minor Groups, and Unit Groups. Major Groups are assigned two-digit codes, Minor Groups three-digit codes, and Unit Groups four-digit codes. Thus, for example, Unit Group 4111 (Secretaries and Stenographers) is a subdivision of Minor Group 411 (Stenographic and Typing Occupations), which in turn is a subdivision of Major Group 41 (Clerical and Related Occupations).

²This system of classification recognises three levels which are, in descending order, Divisions, Major Groups, and Classes. There are twelve Divisions, which are divided into varying numbers of Major Groups; these Major Groups are in turn subdivided into Classes, each of which is assigned a three-digit code number. Thus, Class 174 (Shoe Factories) is under Major Group 4 (Leather Industries) in Division 5 (Manufacturing Industries).

Data for all variables collected by means of this questionnaire have been coded and frequency counts have been stored on computer disc for future use.

3. Survey procedure

Because the method of distribution and collection is one of the most important guarantees of reliability in a survey of this kind, it was decided that the survey should be administered to graduating students in their classrooms whenever possible, and that research personnel should remain in the rooms while the forms were being filled out. There are two advantages to this method. First, it allows the researchers to counteract potential weaknesses in the survey design by clearing up any confusion which the respondents may experience in answering the survey. Second, it ensures a high rate of return among those students attending classes in which the survey was conducted, because it places responsibility for distributing and collecting the survey on the researchers. The extremely high rate of return that was obtained from those graduates who could be reached in this way, when compared with the very low rate of return from those graduates who were asked to respond by mail, shows that this decision was justified.

There was no difficulty in obtaining permission to conduct the survey at either school, since both Lakehead University and Confederation College were enthusiastic about the aims of the study and its possible use for their own planning. Once permission had been granted by the appropriate authorities, arrangements were made for suitable times in which students could fill out the questionnaires. The interviewers then went to each classroom, explained the objectives of the study, answered questions, and collected the completed forms. The survey generally took between thirty and forty minutes to fill out. This part of the research was carried out by two Ministry of Labour employees during the week of March 21 to March 25, 1977.

Each institution presented a particular problem in locating and canvassing graduating students in all programmes. The difficulty encountered at Confederation College, for example, was that of reaching graduating students who were in the field or on work assignments at the time the survey was conducted. In these cases, the questionnaires were sent to the graduating students' supervisors or teachers with an explanation of the project, and the completed questionnaires were returned either to the interviewers or to the Research Branch. In this way graduating students in all courses offered at the College were canvassed.³

More serious difficulties were encountered at Lakehead University. The composition of classes there is such that, except in technological or professional courses, any given classroom may contain students at different levels. This means that graduating Arts and Science students and some post-graduate students could be found in groups of varying sizes in classes also attended by students who were not graduating. The proposed survey method would have disrupted an entire classroom in order to canvass a few graduates and, in addition, ran the risk of overlap and repetition from one class to another. A further difficulty arose in reaching other post-graduate students, many of whom were unavailable for the classroom survey because they had already completed their course work by the time the survey was conducted. For these reasons, questionnaires for graduating Arts and Science students and for graduating post-graduate students were left at Lakehead University for inclusion in "graduation packages," in the hope that the completed forms would be returned by mail. The rate of return from these two groups of students was small, however,

³Courses appearing on the programme list but not represented in the data are those from which no students were graduating in the spring of 1977.

and is responsible for the one significant gap in the survey data.

CHAPTER III

CHARACTERISTICS OF THE SURVEY SAMPLE

In order to interpret the results of this survey, it is helpful to know the characteristics of the sample and their demographic implications. This chapter will therefore describe the graduates as a group. The data for Lakehead University and Confederation College will be combined because they have been obtained from frequency counts for the entire sample.

1. Sex distribution

Table 1 shows the analysis of the sample by sex. It indicates that there is a nearly even distribution of males and females.

Table 1
Percentage Distribution of Graduating Students by Sex

Sex	%
Male	49.9
Female	50.1
Total	100.0
	(916)

2. Age distribution

Table 2 (page 7) shows the age distribution of the sample. The majority of graduating students are between 20 and 24 years of age, and the median age of the sample is 23 years. If the two institutions were considered separately, their median ages would probably differ slightly because college programmes tend to be shorter in duration than university programmes.

3. Marital status

A study by Petersen has shown that single persons are more willing to move than others. $^{\!1}$ The present study supports this finding. Table 3 (page 7) shows that the majority of students in the sample are single, and, as will be seen below, a large number of them are prepared to go wherever jobs are available after graduation (see

¹William Petersen, <u>Population</u>, 2nd ed. (New York: Macmillan, 1969), p. 264.

Tables 11 and 14, "Location of Expected Job ...").

Table 2
Percentage Distribution of Graduating Students by Age

Age	%
< 18 years	_
18 - 19 years	6.4
20 - 24 years	67.9
25 - 29 years	17.7
30 + years	6.9
No information	1.1
Total	100.0
	(916)

Table 3

Percentage Distribution of Graduating Students by Marital Status

Marital Status	%
Single	77.5
Married	20.4
Other	2.1
Total	100.0
	(916)

4. Citizenship status

Table 4 (page 8) shows the citizenship status of the population of graduating students.

5. Degree type

Table 5 (page 8) gives the distribution of the population by type of degree. It shows that over half the graduating students are enrolled in Diploma courses, a result that is not surprising in view of the fact that both Lakehead University and Confederation College offer Diploma programmes (see Appendix A, pp. 17-19). Those enrolled in Bachelors' programmes account for a total of 36.9% of the population.

Table 4

Percentage Distribution of Graduating Students by Citizenship Status

Citizenship Status	%
Canadian Citizen	94.2
Landed Immigrant	2.6
Student Visa	3.2
Total	100.0
	(916)

This group contains only University students, and would undoubtedly have been larger had the return from Arts and Science students been higher.

Table 5

Percentage Distribution of Graduating Students by Degree Type

Degree Type	%
General BA	19.1
Honours BA	17.8
Masters	0.6
Graduate Diploma	1.7
Diploma	58.1
Certificate	2.7
Total	100.0
	(916)

6. Length of residence

Table 6 (page 9) shows the length of time the graduating students have lived in Northwestern Ontario. The largest group, comprising nearly 60 percent of the sample, have lived in the Region for more than ten years. The next largest groups are those who have lived in the Region for one to two years, and those who have lived there for three to five years; these two groups together constitute 28.2% of the total.

Table 6

Percentage Distribution of Graduating Students by Length of Residence

No. of Years	%
1 year	8.6
1 - 2 years	16.3
3 - 5 years	11.9
6 - 10 years	3.8
> 10 years	59.3
No information	0.1
Total	100.0
	(916)

7. Plans to move

Table 7 indicates whether the graduating student intends to remain in the Region or whether he intends to leave it. Only slightly more students plan to move than plan to stay during the first year after graduation, while over one-quarter are undecided. After the first year those who plan to move and those who are undecided become the dominant categories among those to whom the question applies.

Table 7

Percentage Distribution of Graduating Students by Plans to Move by Period

%		
	%	%
21.4	11.2	9.1
5.0	5.6	5.3
6.0	11.7	13.4
1.1	4.8	5.6
66.5	66.7	66.6
.00.0	100.0	100.0
(01.6)	(916)	(916)
	(916)	

8. Choosing the programme of study

Zsigmund et al. have found that "even today more students attend a post-secondary institution to enhance their career and income opportunities than for any other reason." Their results showed that most students chose a programme of study for job-related reasons, and that the second largest number chose a programme to "broaden my knowledge." They suggest that, because of the large influx of post-secondary graduates into the labour market, advanced university degrees may no longer command more or better job opportunities, and that "students' expectations are out of line with labour market realities."

The results of the present study are similar to those of Zsigmund et al., although the relative importance of economic reasons and personal reasons is reversed. Table 8 shows the findings.

Table 8

Percentage Distribution of Graduating Students
By Reason for Choosing Programme of Study

Programme of Study	. %
Economic	34.9
Personal	43.0
Couldn't find Job	0.9
Encouraged by Others	4.0
Don't Know	3.1
Other	9.2
No Information	4.0
Not Applicable	0.9
Total	100.0
	(916)

 $^{^{2}}$ "Future Trends in Enrolment and Manpower Supply in Ontario" (October, 1976), pp. 30-31.

^{3&}lt;sub>Ibid</sub>.

CHAPTER IV

INTENDED OCCUPATION, INDUSTRY, AND LOCATION OF JOB

Although the data for this chapter were originally collected in great detail, they were later aggregated in order to analyse broader trends. Data on individual programmes of study were aggregated to subject areas, data on occupation were aggregated to Major Groups, and data on industry were aggregated to Divisions. In order to facilitate analysis of these data, tables containing the following information were constructed, one each for Lakehead University and Confederation College:

- intended occupation by programme of study and sex (Tables 9 and 12);
- 2) intended industry by programme of study and sex (Tables 10 and 13);
- 3) intended destination by programme of study and sex (Tables 11 and 14).

1. Combined findings for Lakehead University and Confederation College

In the frequency counts combining data for Lakehead University and Confederation College, the three occupational categories most often cited as the respondents' first choices were Teaching and Related Occupations (21%), Occupations in Medicine and Health (13.4%), and Not Seeking Employment (11.3%). Graduates in the last category included, among others, those who planned to return to school in the fall and those who planned to be housewives or househusbands. These three occupational groups combined are the first choices of nearly half the survey population (45.7%). The second and third choices, among those who gave them, are more diverse than the first choices, none having a frequency higher than 7.0%. The "clumping" effect in the Teaching, Medicine and Health, and Not Seeking Employment categories disappears entirely.

The pattern observed in the "Not Applicable" responses to occupational choice is noteworthy. While only 1.4% of the sample graduates said that a first occupational choice was not applicable to them, 53.4% said that a second choice was not applicable, and 74.8% said that a third choice was not applicable. This pattern suggests that most students have a definite career preference, but that few keep any alternatives in mind. Such narrowness of career choice may result from the fact that the programmes at these institutions, being largely professional and technical, are designed to prepare students for a particular career.

More detailed data for Lakehead University and Confederation College are given in the sections that follow.

 $^{^{1}}$ These tables may be found in Appendix C, on pages 38 to 48.

2. Lakehead University

2. A. Intended occupation

Table 9 (see Appendix C, p. 38) shows the intended occupations of students graduating from Lakehead University. Thirty-five percent of respondents gave Teaching as their first choice of occupation, a response which is not surprising in view of the fact that 31.0% of the students surveyed were enrolled in teaching programmes. Teaching students account for 85.6% of those intending to teach; this group is divided almost evenly between males and females. Physical Education and Health graduates are the only other category that constitutes a noteworthy percentage of the graduates who intend to teach (7.8%).

The second most frequently chosen occupational group is Forestry and Logging Operations, which constitutes 14.9% of the total. Ninety-nine percent of those intending to go into this occupational group are Forestry students, the single exception coming from the Business Administration programme. The overwhelming majority of Forestry Students are male.

The third most frequently chosen group, Occupations in Natural Sciences, Engineering and Mathematics, is the intended occupation of 13.4% of the total; engineering students account for 84.4% of this group. Almost as large is the group not seeking employment, which constitutes 13.2% of the total; 70% of graduates in this category are males and 30% are females.

All Major Groups are represented in the data on university graduates except the following: Clerical and Related Occupations; Processing Occupations; Machining and Related Occupations; Product Fabricating, Assembling and Repairing Occupations; Transport Equipment Operating Occupations; and Other Crafts and Equipment Operating Occupations. The absence of aspirants to these occupations among prospective University graduates is not surprising, since the training provided by the University is not required for proficiency in these jobs.

2. B. Intended industry

Table 10 (Appendix C, p. 40) shows the intended industries of students graduating from Lakehead University. The data for intended industry are consistent with those for intended occupation, and the Occupation Groups most frequently chosen by graduates lie within the Industry Divisions most frequently chosen. The most important Division, accounting for 48.2% of all graduating students' choices of industry, is Community, Business, and Personal Services. This Division includes Education and Related Services, Health and Welfare Services, Amusement and Recreation Services, and Services to Business Management. The largest categories of students planning to enter careers within it are those graduating from Teaching (63.0%), Nursing (9.0%), Physical Education and Health (9.0%), and Arts and Science (9.0%). 55.9% of the members of this group are females.

The second most frequently chosen Industry Division is Forestry, in which Logging and Forestry Services are the two Major Groups. This Division accounts for 16.4% of graduating students' industry choices, and 98.7% of those who chose it were from the Forestry programme.

²This figure, like some of the others used in the following discussion, can be calculated from data provided in the tables.

The only other sizeable percentage is in the "Not Applicable" category, which made up 15.3% of the total. This group includes graduating students who are unavailable to the labour supply because they either were returning to school, were on student visas, or were not seeking employment.

The frequencies for the remaining Divisions are negligible, although all Divisions were represented. A "No Information" code was used if the choice of industry was unspecified.

2. C. Location of expected job

Expected job locations of graduating University students are shown in Table 11 (Appendix C, p. 42). The largest cluster, having 34.4% of the total, is of graduates who intend to look for a job within Northwestern Ontario. Prominent in this group are those in Teaching programmes (44.1%) and Forestry programmes (20.5%). Graduates from Engineering and Nursing programmes are the next highest, each having 9.9% of the total, while Physical Education and Health students have the lowest frequency in this category at 1.2%.

The second most frequently cited location is "Wherever I Can Find a Job," which accounted for 30.2% of the total. Teaching students are again the most numerous in this group, while Forestry students come second (26.9%). Graduates from Engineering programmes constitute 17.6% in this category, and those from Physical Education and Health, 9.2%.

The fact that Teaching and Forestry programmes predominate in both of these intended locations does not necessarily indicate a contradiction in the findings. It may simply reflect an awareness among graduating students that the jobs available in their chosen occupations within Northwestern Ontario cannot accommodate all those who intend to enter them, and that some graduates will be compelled to seek employment outside the Region.

The other possible choices of location are cited infrequently. Only 7.3% of graduating students intend to look for a job in the Western Provinces, and a mere 1.8% expect to work in the combined destinations of Quebec, Northern Canada, the Atlantic Provinces, and Outside Canada.

3. Confederation College of Applied Arts and Technology

3. A. <u>Intended Occupation</u>

Table 12 (Appendix C, p. 44) shows the intended occupations of students graduating from Confederation College. The occupational choice cited most frequently is Occupations in Medicine and Health (23.2%). This Major Group is chosen almost exclusively by Nursing students (57.8%) and Health Sciences students (40.2%). Only four of the 102 students choosing this Group are males.

Next in importance are the Clerical Group and the Construction and Repair Group, each having 12.3% of the total. Students choosing Clerical occupations are almost exclusively female; 92.6% of them are in Secretarial programmes, and 7.4% are in Business programmes. The Construction and Repair Group is, with one exception, entirely male; 62.9% are in Aviation Technology and 35.2% are in Engineering Technology. The remaining occupational groups have low frequencies; all are under 10%. It is interesting to note that while 13.2% of University graduates do not intend to seek employment during the year after graduation, only 9.1% of Confederation College students are in this category.

The two programmes having the largest enrolment at Confederation College are Applied Arts and Business. Graduates in the Applied Arts programmes, who are predominantly female, are concentrated in Social Sciences and Teaching; 29.4% of Applied Arts graduates intend to enter Social Sciences, and 22.9% intend to enter Teaching. The heaviest concentration of Business students is in Sales; 46.2% of Business graduates plan to enter this occupation.

Not all occupational groups were chosen by Confederation College graduates: Farming, Horticultural and Animal-Husbandry Occupations; Fishing, Hunting, Trapping, and Related Occupations; Forestry and Logging Occupations; Mining and Quarrying Including Oil and Gas Field Occupations; and Product Fabricating, Assembling, and Repairing Occupations all had frequencies of zero. Most of these groups are based on the extraction of natural resources, and require skilled and unskilled labour rather than technologically trained workers.

3. B. Intended Industry

Table 13 (Appendix C, p. 46) shows the intended industries of students graduating from Confederation College. Graduates from the College, like those from the University, named industries that were consistent with their intended occupations. The Division most frequently cited was Community, Business, and Personal Services, which accounted for 55.6% of the total. Eighty-seven percent of graduates intending to enter this Division are female, a fact which can be explained by the predominance of students from the Applied Arts, Health Sciences, Nursing, and Secretarial Arts programmes, all of which contain majorities of females.

Transportation, Communication, and Other Utilities is the second most frequently cited Division, comprising 13.2% of the total. Aviation Technology graduates form the largest part of those choosing this as their intended industry (44.8%). More than 86% of graduates intending to enter this Division are men.

Many graduates of Engineering and Aviation Technology programmes said that they expected to enter Manufacturing Industries. Although this Division accounts for only 6.6% of the total for Confederation College graduates, it is noteworthy that 51.7% of those who intend to enter Manufacturing are Engineering graduates, and 34.5% are Aviation Technology graduates.

The remaining Divisions were cited only rarely or not at all. Divisions not represented at all are Agriculture, Fishing and Trapping, and the uncoded and undecided categories.

3. C. Intended location of job

Table 14 (Appendix C, p. 48) shows that the pattern of intended job locations among Confederation College graduates is similar to that among Lakehead University graduates. Northwestern Ontario is the intended location of 42.8% of College students. Considered according to programme of study, graduates from the Applied Arts programmes account for the largest percentage of those intending to remain (26.1%), followed by graduates from Secretarial Arts (20.2%), and graduates from Business programmes (15.9%). It is interesting to note that 72.9% of those wishing to remain in the Region are female, a fact which suggests that female graduates will be less mobile than their male counterparts immediately after graduation.

The next most important destination is Wherever I Can Find A Job, which accounts for nearly one-quarter of the graduates from Confederation College (24.8%). Graduates from Applied Arts programmes are more willing than those from any other

programme to accept a job anywhere. They account for 30.3% of those willing to move outside the Region, followed by graduates from Nursing, who account for 27.5% of that category. Secretarial Arts graduates, on the other hand, are the least willing to accept a job anywhere; well over half of the graduates in this programme (63.3%) expect to look for jobs within Northwestern Ontario.

Those choosing "Other Ontario" as their intended job location account for 6.6% of the total; Aviation Technology students make up 34.5% of this group, and Applied Arts graduates 24.1%. Western Canada is chosen as a job location by 9.3% of the total; graduates from all programmes chose this destination, although Engineering Technology is the largest group (26.8%). The combined destinations of Northern Canada, Quebec, the Atlantic Provinces, and Outside Canada account for only 4.8% of the total; nearly half of this group are nursing students who will seek employment outside Canada.

4. Summary of the findings

4. A. Lakehead University

The data show a positive correlation between field of study and occupational choice for students graduating from Lakehead University (see Table 15, Appendix C, p. 49). Fifty-eight percent of Arts and Science students chose Occupations in Social Sciences and Related Fields, while another 29.2% chose Teaching and Related Occupations. Seventy-four percent of Commerce students chose Managerial, Administrative and Related Occupations, while 13.0% chose Sales Occupations. Fortythree percent of Business Administration students also chose Managerial, Administrative and Related Occupations, although a further 42.9% were dispersed thoughout Occupations in Natural Science, Engineering and Mathematics, Sales Occupations, and Occupations Not Elsewhere Classified. Ninety percent of Engineering graduates chose Natural Science, Engineering, and Mathematics. Eighty-five percent of Forestry students chose occupations in Forestry and Logging. Eighty-six percent of Nursing graduates chose Occupations in Medicine and Health, while the remainder chose Teaching and Related Occupations. Physical Education and Health students were clustered in Teaching Occupations (62%) and Occupations in Sport and Recreation (28%). Ninetyseven percent of students in the Teaching programme chose Teaching Occupations. All Library Science students chose the Social Sciences and Related Fields.

4. B. Confederation College

Data for students graduating from the College show much the same correlation between field of study and occupational choice (see Table 16, Appendix C, p. 50). Graduates from Applied Arts chose more diversified occupations than any others chose, probably because of the wide variety of programmes encompassed by this division. The majority of graduates from these programmes chose Occupations in the Social Sciences or Teaching, and most of the remainder chose Occupations in Sport and Recreation or Service Occupations. All graduates of the Health Science Programmes chose Occupations in Medicine and Health, as did 98.3% of the Nursing graduates. Over half of the Business graduates chose Sales Occupations, while another one-quarter chose Managerial, Administrative and Related Occupations. Ninety-four percent of the Secretarial Arts students chose a Clerical occupation. Ninety-seven percent of the Aviation Technology students and 44.2% of the Engineering Technology students chose Construction Trades Occupations, while another one-quarter of Engineering Technology graduates chose Occupations in Natural Sciences, Engineering and Mathematics.

CHAPTER V

CONCLUSTONS

There are four noteworthy characteristics of the career intentions declared by students graduating from college or university in Northwestern Ontario. First, although personal satisfaction is the prime reason that graduates named for choosing their programmes of study, economic reasons are also important to them. Second, there is a positive correlation between the programmes of study in which graduates were enrolled and the occupations and industries in which they intended to look for work after graduation. Third, most graduates have a clear job preference, and relatively few of them stated alternatives to that preference even though they were asked to do so. Fourth, although many graduates plan to look for work within Northwestern Ontario, a majority are willing to accept work either outside the Region or wherever a job is available.

The reader should bear in mind that these results reflect only the <u>intentions</u> of graduating students. Even though respondents to the survey were asked to be realistic, it remains possible that they did not take labour market conditions fully into account. A follow-up study of graduates who participated in this survey will help to determine how realistic these stated intentions were by comparing them with the occupations which graduates actually entered.

Nevertheless, the study does show that prospective graduates have distinct job preferences, and this fact is significant in itself. Given the narrowness of career choice expressed by these graduates, the inability to find jobs closely related to their preferred fields is likely to cause frustration, underemployment, loss of manpower to the economy, and misplaced specializations. Such problems can be avoided, or at least controlled, if those who plan programmes for the secondary schools tailor academic training more closely to the realities of the labour market. But it is also clear that unless more students enrol for reasons other than the pursuit of a particular job, the "expectation-opportunity gap" which Zsigmund describes will widen, and underemployment will become increasingly severe. It therefore seems that now more than ever before, educational planners should bear in mind present and future labour market opportunities.

APPENDIX A

PROGRAMME OF STUDY: GROUPINGS USED IN ANALYSIS

1. Lakehead University Programmes

Arts and Science:

Bachelor of Arts
Honours Bachelor of Arts
Bachelor of Social Work
Honours Bachelor of Social Work
Bachelor of Science
Honours Bachelor of Science
Bachelor of Applied Science (1st year only)

Commerce:

Honours Bachelor of Commerce

Business Administration:

Bachelor of Administration Diploma in Business Administration Diploma in Business Administration (Computer Systems) Graduate Diploma in Business Administration

Engineering:

Bachelor of Engineering (post diploma)
Diploma in Engineering Technology
Diploma in Chemical Engineering Technology
Diploma in Civil Engineering Technology
Diploma in Electronics Engineering Technology
Diploma in Mechanical Engineering Technology

Forestry:

Bachelor of Science in Forestry Diploma in Forest Technology Certificate in Environmental Forest Technology Certificate in Timber Harvesting Technology

Nursing:

Bachelor of Science in Nursing (basic degree) Bachelor of Science in Nursing (post-diploma)

Physical Education and Health:

Honours Bachelor of Physical and Health Education Bachelor of Physical and Health Education

Bachelor of Physical Education in Outdoor Recreation Master of Arts or Science in the Theory of Coaching

Teaching:

B.A.-B.Ed., 4 year Degree Programme for Elementary Schools B.Sc.-B.Ed., 4 year Degree Programme for Elementary Schools B.A.-B.Ed., 4 year Degree Programme for Secondary Schools B.Sc.-B.Ed., 4 year Degree Programme for Secondary Schools Degree Programme, 1 yr. for Elementary Schools Degree Programme, 1 yr. for Secondary Schools B.A. or B.Sc.-B.Ed., 1 yr. combined programme Native Teachers, 2 yr. Education Programme

Library Science:

Diploma in Library Technology Certificate in School Librarianship

2. Confederation College Programmes

Applied Arts:

Broadcasting, Radio and T.V. Arts
Early Childhood Education
Film Production
General Arts & Science
Law and Security (1 yr. and 2 yrs.)
Mental Retardation Counsellor
Recreational Leadership
Social Service Worker

Health Sciences:

Dental Assistant Dental Hygiene Radiological Technician

Nursing:

Nursing (Diploma)

Business:

Business Data Processing Systems
Business Data Processing (Advanced)
General Business - Accounting Management
General Business - Administrative Management
General Business - Marketing and Sales Management
Hotel Management
Industrial Relations (Personnel)
Industrial Relations (Advanced)
Travel/Tourism Administration

Secretarial Arts:

Secretarial Arts Executive Secretarial

Legal Secretarial Medical Secretarial

Aviation Technology:

Aircraft Maintenance Technician Avionics Maintenance Technician Aviation Management - Private Licence Aviation Management - Commercial Licence

Engineering Technology:

Architectural Engineering Technician
Architectural Engineering Technician (Advanced)
Civil Engineering Technology
Civil Engineering Technology (Advanced)
Electrical Engineering Technology
Electronics Engineering Technician
Electronics (TV and Audio) Technician
Mechanical Engineering Technician



CONFIDENTIAL.

NORTHWESTERN ONTARIO MANPOHER ADJUSTMENT STUDY

Survey of Intentions of Students

Graduating from Post-Secondary Schools

in Northwestern Ontario

March 1977

THIS QUESTIONNAIRE IS TO BE COMPLETED BY THOSE STUDENTS WHO WILL GRADUATE AT THE END OF THE 1976-77 SCHOOL TERM FROM LAKEHEAD UNIVERSITY AND CONFEDERATION COLLEGE OF APPLIED ARTS AND TECHNOLOGY, THUNDER BAY

Please direct any questions to:

Ms. Susan Allemang Research Branch Ontario Ministry of Labour 400 University Avenue Toronto, Ontario MTA 117

or

Call (Collect): (416) 965-6886

NORTHWESTERN ONTARIO MANPOWER ADJUSTMENT STUDY

Survey of Intentions of Students Graduating From Post-Secondary Schools in Northwestern Ontario

MARCH 1977

NAME:
PRESENT ADDRESS:
PERMANENT ADDRESS (if different from above):
SECTION A - GENERAL INFORMATION
(Please check the appropriate response(s))
1. Sex:
Male Female
2. What is your age?
month year
3. What is your marital status?
Single Married Separated
Divorced Widow/Widower
4. Where were you born?
Within Northwestern Ontario (i.e. Districts of Thunder Bay, Kenora and Rainy River)
Within Northeastern Ontario (i.e. Counties of Algoma, Cochrane, Nipissing, Parry Sound, Sudbury, Timiskiming)
Southern Ontario (i.e. south of Parry Sound)
Outside Ontario (specify Province)
Outside Canada (specify Country)

٠, כ	what is your citizenship status?
	Canadian Citizen Landed Immigrant
	Student Visa, if so, do you plan to return to your country of origin after graduating?
	Yes Do Not Know
	Other(specify)
6.	Where did you complete your High School education? Name of High School:
	Location:(City or Town) (Province) (Country)
7.	How long have you been living in Northwestern Ontario?
	Less than 6 months 3 to 5 years
	6 months to 1 year 6 to 10 years
8.	in the chair to years
	Do you have any plans to move from the community of your present residence (i.e. Thunder Bay) within the next year?
	Yes Undecided (Go to Question 10) (Go to Question 11)
9.	If you answered "yes" to Question 8, to where will you be moving?
	Elsewhere in Northwestern Ontario Elsewhere in Southern Ontario
	Northeastern Ontario Outside Ontario
	Metropolitan Toronto area Outside Canada (specify Province) (specify Country)
	(Go to Question 11)
10.	If you answered "no" to Question 8, do you expect that you will still be living in the community of your present residence:
	2 years from now?
	Yes Undecided
	5 years from now?
	Yes No Undecided
	More than 5 years from now? Yes Undecided
11.	Are you presently attending school:
	Full-time? Part-time?
2.	What is the name of your present institution?
	Lakehead University Confederation College

13.	What type of Degree/Diploma/Co Graduation in May 1977?	ertificate do you expect	to receive	upon
	Bachelors (General)	(specify major)		
	Bachelors (Honours)	(specify major)		
	Masters Degree	(specify major)		
	Graduate Diploma	(specify)		
	Diploma	(specify)		
	Certificate	(specify)		

14. If attending Lakehead University, from which programme are you graduating?

FACULTY OF ARTS Bachelor of Arts Honours Bachelor of Arts Bachelor of Social Work Honours Bachelor of Social Work FACULTY OF SCIENCE Bachelor of Science Honours Bachelor of Science FACULTY OF UNIVERSITY SCHOOLS (BACHELORS) Honours Bachelor of Commerce Bachelor of Administration Bachelor of Applied Science (1st year only) Bachelor of Engineering (post diploma) Bachelor of Science in Forestry Bachelor of Science in Nursing 1. Basic Degree Programme 2. Post-Diploma Degree Programme Honours Bachelor of Physical and Health Education Bachelor of Physical and Health Education Bachelor of Physical Education in Outdoor Recreation FACULTY OF UNIVERSITY SCHOOLS (DIPLOMAS) Diploma in Business Administration Diploma in Business Administration (Computer Systems) Diploma in Engineering Technology 1. Chemical Engineering Technology 2. Civil Engineering Technology 3. Electronics Engineering Technology 4. Mechanical Engineering Technology Diploma in Forest Technology Diploma in Library Technology

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FACULTY OF UNIVERSITY SCHOOLS (CERTIFICATES)
Certificate in Environmental Forest Technology
Certificate in Timber Harvesting Technology
Certificate in School Librarianship
FACULTY OF EDUCATION
B.A B.Ed. 4 yr. Degree Programme for Elementary School Teachers
B.Sc B.Ed. 4 yr. Degree Programme for Elementary School Teachers
B.A B.Ed. 4 yr. Degree Programme for Secondary School Teachers
B.Sc B.Ed. 4 yr. Degree Programme for Secondary School Teachers
Degree Programme, 1 yr. for Elementary School Teachers
Degree Programme, 1 yr. for Secondary School Teachers
Native Teachers, 2 yr. for Education Programme
GRADUATE STUDIES
Master of Arts
Master of Science
Master of Education
Graduate Diploma in Business Administration
Master of Arts or Science in the Theory of Coaching
Other post-secondary programme(s) leading to degree/diploma/certificate, please specify

4. If attending Confederation College, which programme are you graduating from?

Applied Arts and Health Sciences Division		Duration	
Broadcasting, Radio & T.V. Arts		years	
Dental Assistant	1	**	
Early Childhood Education	2	11	
Film Production	2	**	
General Arts & Science	2	н	
Law and Security Administration (1)	1	11	
Law and Security Administration (2)	2	11	
Mental Retardation Counsellor	2	11	
Nursing (Diploma)	2	11	
Radiological Technician	2	11	
Recreational Leadership	2	11	
Social Service Worker	2	**	
Posta de Printeta			
Business Division			
Business Data Processing Systems	2	11	
Business Data Processing (Advanced)	3	11	
General Business	2	11	
General Business - Accounting Management	2	11	
General Business - Administrative Management	2	11	
General Business - Marketing & Sales Management	2	11	
Hotel Management	2	11	
Industrial Relations (Personnel)	2	11	
Industrial Relations (Advanced)	2	11	
Secretarial Arts	1	11	
Secretarial Arts (Advanced)	2	11	
Executive Secretarial	1	"	
Legal Secretarial	1	11	
Medical Secretarial	1	11	
Travel/Tourism Administration	2	11	

	Technology Division	D.,	
		-	ration
	Aircraft Maintenance Technician	2	years
	Avionics Maintenance Technician	2	11
	Aviation Management - Private Licence	2	11
	Aviation Management - Commercial Licence	2	11
	Architectural Engineering Technician	2	11
	Architectural Engineering Technician (Advanced)	3	**
	Civil Engineering Technology	2	"
	Civil Engineering Technology (Advanced)	3	11
	Electrical Engineering Technology	2	**
	Electronics Engineering Technician	2	11
	Electronics (TV and Audio) Technician	2	11
	Mechanical Engineering Technician	2	11
	Survey Technician	2	11
	Interior Design	2	11
Othe	r Post-Secondary Programmes;		
	(Please Specify)		

SECTION B - FUTURE PLANS

(Please be as realistic as possible when completing this section)

15.	What are your plans for the summer from graduation in (Check more than one response where applicable)	May 1977 to	August 1977
		FULL-TIME	PART-TIME
	 a) Plan to attend a university or community college (summer courses) 	TOUR TIME	TART-TIME
	 b) Plan to attend another type of business or specialized college 		
	c) Plan to look for a permanent job		
	d) Plan to look for a temporary job		
	e) Already have a satisfactory job after graduation		
	Plan to travel abroad Undecided		
	Plan to travel within Canada Other	(
	Plan to get married	(specify)	
16.	How definite are the plans you checked above?		
	Very definite They depend o	n many things	3
	Fairly Definite Very indefini	te	
17.	What are your plans for the Academic Year, September 1 (Check more than one response where applicable)	977 to June 1	1978?
	a) Plan to attend a university of community college	FULL-TIME	PART-TIME
	 b) Plan to attend another type of business or specialized college 		
	c) Plan to look for a permanent job		
	d) Plan to look for a temporary job		
	e) Already have a job for next year		
	Plan to travel abroad Undecided		
	Plan to travel within Canada Other		
	Plan to get married	(specify)	
18.	How definite are the plans you checked above?		
	Very definite They depend on	many things	
	Fairly definite Very indefinit	e	

19.	If you	intend to attend a university or	CON	munity college, will it be:
		Within Northwestern Ontario (i.e Bay, Kenora and Rainy River)	. D1	stricts of Thunder
		Please specify name and location	of	institution:
		Outside Northwestern Ontario		
		Please specify name and location	of	institution:
		SECTION C - CHOICE OF	PRO	GRAMME STUDY
20.		d you choose your programme of st more than one response where app		
		For economic reasons; i.e. bette	r jo	b, high pay, job security, etc.
		For personal reasons; i.e. for m to employment prospects.	ry ow	n satisfaction but <u>not</u> related
		Could not find a job so I am sta	ying	in school
		Encouraged by family/friends/teathis programme	cher	/guidance counsellors to take
		Do not know		
		Other		
		(spe	cify)
21.		s most influential in your decisi more than one response, in order able)		
		My parents		Post-secondary guidance counsellor
		Other relatives		Friends
		A teacher		Other
		High school guidance counsellor		No one helped me
				Do not know

SECTION D - OCCUPATIONAL CHOICE

22.	Are you	u presently employed? tion, but have not yet	(Note: If y started to w	ou have accept ork, check "No	ed a job following "}.	
		Yes	☐ No] Full-time	
		Part-time				
23.	If you descri	are presently employe	ed, please giv	e a job title	and a brief job	
		Title:				
		Description:				_
						_
						_
24.	If not	presently employed, h	have you acce	oted a job offe	r following gradua	tion?
			l-time? t-time?			
		No				
25.	If yes	,please give a job ti	tle and a brie	ef job descript	ion:	
		Title:				
		Description:				
26.		n feel you had access nation after graduation		information to	decide your prefe	erred
		Yes		No		
27.	If yes	, what was the source	of your info	rmation?		
		Family		Searched for i	t	
		Friends		Media		
		Teachers/buidance co	unsellors			
28.	Can yo	ou specify the occupat nment?	ion or the ty	pe of job in wh	nich you are seekin	ng

29.	Where do you expect to look for a job?
	Within Northwestern Ontario
	Within Northeastern Ontario
	Within Southern Ontario
	Outside Ontario (specify province)
	Outside Canada (specify country)
	Wherever I can find a job
30.	If you intend to look for a job <u>WITHIN</u> the Northwestern Ontario region, please give your reasons. (In order of importance, beginning with the most important.)
31.	If you intend to look for a job OUTSIDE the Northwestern Ontario region, please give your reasons. (In order of importance, beginning with the most important.)

32. What industry do you expect to be employed in? Please select the group that hest describes your intended industrial field. (Note that examples have been provided to clarify the nature of each industrial group.)

DIVISION 1 - AGRICULTURE (including experimental and institutional farming)
DIVISION 2 - FORESTRY
 (including logging and forestry services)
DIVISION 3 - FISHING AND TRAPPING (including hunting)
DIVISION 4 - MINES (including Milling) QUARRIES and OIL WELLS
metal mines
mineral fuels
non-metal mines (except coal)
quarry and sand pits
services incidental to mining (e.g. contract drilling)
DIVISION 5 - MANUFACTURING INDUSTRIES
food and beverage industries e.g. meat, poultry and fish products; feed industry, dairy products
tobacco products industries
rubber and plastic products industries
leather industries (e.g. tanneries, shoe factories, luggage & handbag manufacturers
textile industries
knitting mills e.g. knitting & hosiery mills
clothing industries e.g. fur goods, foundation garments
wood industries e.g. <u>saw mills</u> , planing mills & shingl e mills, <u>veneer & plywood mills</u>
furniture & fixture industries e.g. office & household furniture
paper & allied industries e.g. pulp & paper, paper box & bag manufacturers, asphalt roofing manufacturer
printing, publishing & allied industries
primary metal industries e.g. iron & steel mills, aluminium rolling smelting & refining, steel pipe & tube mills
metal fabricating industries (except machinery & transportation equipment industries) e.g. boiler & plate works, ornamental & architectural metal industry, wire manufacturers, machine shops.
machinery industries (except electrical machinery) e.g. agricultural implement industry, office & store machinery manufacturers.
transportation equipment industries e.g. aircraft & parts manu- facturers, motor vehicle manufacturers, boatbuilding & repair
electrical products industries e.g. manufacturers of small and major electrical appliances, communications equipment
non-metallic mineral products industries e.g. clay products, cement manufacturers, glass manufacturers
petroleum & coal products industries
chemical & chemical products industries e.g. mixed fertilizers, pharmaceuticals & medicines manufacturers, industrial chemicals
miscellaneous manufacturing industries e.g. scientific & pro- fessional equipment, jewellery, signal and displays

r	
	DIVISION 6 - CONSTRUCTION INDUSTRY
	general contractors
	special trade contractors
	DIVISION 7 - TRANSPORTATION, COMMUNICATION & OTHER UTILITIES
	transportation e.g. air, water, urban; pipeline transport, highway and bridge maintenance
	storage e.g. grain elevators, warehousing
	communication e.g. radio & television broadcasting, telephone, telegraph, post-office
	electric power, gas & water utilities
	DIVISION 8 - TRADE
	wholesale eg. food, general merchandise, machinery, drugs, etc.
	retail trade eg. food stores, repair shops, clothing stores, florists, jewellers, etc.
	DIVISION 9 - FINANCE, INSURANCE & REAL ESTATE
	finance industries e.g. banks, security brokers, investment and holding companies
	insurance carriers
	insurance agencies & real estate industry e.g. real estate operators & agencies
	DIVISION 10 - COMMUNITY, BUSINESS & PERSONAL SERVICE INDUSTRIES
	education and related services e.g. schools, colleges, libraries, museums
	health and welfare services e.g. hospitals, medical offices, welfare organizations, religious organizations
	amusement & recreation services e.g. motion picture theatres, bowling alleys, golf clubs
	services to business management e.g. employment and personnel agencies, computer services, security, advertising, lawyers' offices, business consultants
	personal services e.g. barber & beauty shops, shoe repair, laundries, funeral services
	accommodation and food services e.g. hotels, motels, camping grounds, restaurants
	miscellaneous services e.g. labour organizations, trade associations, auto & truck rental, blacksmithing and welding shops.
	DIVICION 11 DIDITO ADMINICIDATION & DEFENCE
	DIVISION 11 - PUBLIC ADMINISTRATION & DEFENCE federal administration e.g. defence services, R.C.M.P., public
	service
	provincial administration
	local administration
	other government offices e.g. consular, diplomatic and legation activities
	DIVISION 12 - INDUSTRY UNSPECIFIED OR UNDEFINED
	job not specified with sufficient precision to be assigned to particular industry

33. The following is a list of occupations broadly grouped together. Please select up to three occupational groups which best describe your intended occupational choices, and indicate their order of importance. (Please note that examples have been provided to clarify the nature of each occupational group).

	NOT SEEKING EMPLOYMENT travelling, student, housewife, etc.
(001)	FARMING, HORTICULTURAL & ANIMAL HUSBANDRY OCCUPATIONS
(071)	farmers, foremen, nursery & related workers
(0/1)	FISHING, HUNTING, TRAPPING & RELATED OCCUPATIONS
(731)	captains & officers, fishing vessels, fishermen, hunting, trapping
	FORESTRY & LOGGING OCCUPATIONS
(757)	logger, forestry,conservation
(751)	MINING & QUARRYING (INCLUDING GAS & OIL FIELD OCCUPATIONS)
(771)	drilling and blasting
, ,	EDUCATION
(027)	teachers, lecturers, counsellors, guidance officers, etc.
	MEDICINE AND HEALTH
(031)	doctors, dentists, veterinarians, nurses, pharmacists, optometrists, x-ray technicians, dental hygenists, medical technicians, dieticians, etc.
	SECRETARIAL, STENOGRAPHIC
	secretaries, stenographers, typists, etc.
(411)	CLERICAL (EXCLUDING SALES CLERKS)
(413)	financial, statistical, production, shipping, receiving, library, hotel, bank information and travel clerks; bank tellers, cashiers, book and/or record keepers, keypunch and machine operators, etc.
	AUTOMATIC DATA PROCESSING
(218)	programmer, systems analyst
	MANAGEMENT, ADMINISTRATION AND MERCHANDISING
	FINANCE AND ACCOUNTANCY
(117)	personnel officer, auditor, accountant, banker & comptroller, etc.
	PURCHASING AND SALES
(051)	insurance agent, real estate, wholesale & retail salesperson, travel agent, advertising sales, buyer-purchasing agent, sales clerk, service station attendant, etc.
	NATURAL SCIENCES, ENGINEERING AND ARCHITECTURE
	LIFE SCIENCES
(213)	agriculturists, biologists, life sciences, technologists, etc.
	PHYSICAL SCIENCES
(211)	chemists, geologists, physicists, etc.

1	MATHEMATICS
	mathematicians, statisticians, actuaries,
(218)	etc.
	ENGINEERING AND ARCHITECTURE
	professional engineers, architects, surveyors, draftsmen, etc.
(214)	SOCIAL AND BEHAVIORAL SCIENCES
_	COMMUNITY DEVELOPMENT AND SOCIAL WORK social worker, welfare worker, urban and city planner, etc.
(233)	
	ADMINISTRATION OF JUSTICE (EXCLUDING POLICEMEN)
(234)	judge, lawyer, magistrate, notary, etc.
	SOCIAL AND BEHAVIORAL SCIENCES
(23)	sociologist, anthropologist, psychologist, economist, etc.
(231)	LIBRARY, MUSEUM AND ARCHIVAL SCIENCES
(775)	librarian, archivist, curator, etc.
(235)	ENTERTAINMENT AND THE PERFORMING ARTS
	actor, actress, singer, musician, dancer, radio/television
(333)	announcer, personal manager, etc.
	CREATIVE ART, COMMERCIAL ART AND PHOTOGRAPHY
(331)	artist, sculptor, industrial product, fashion & interior design, commercial artist, illustrator, photographer, etc.
	WRITING, JOURNALISM AND TRANSLATION
(335)	interpreter, translator, writer, author, reporter, journalist, editor, publisher, etc.
	RECREATION AND SPORTS
(337)	coach, trainer, instructor, referee, athlete, etc.
	SERVICE OCCUPATIONS
	PERSONAL AND COMMUNITY PROTECTION
	policemen, firemen, guard, member of armed forces, etc.
(611)	PERSONAL CARE AND HOSPITALITY
	barber, hairdresser, waiter, waitress, bartender, host, hostess,
(612)	guide, porter, etc.
	OTHER SERVICE OCCUPATIONS
	janitor, chambermaid, dry cleaner, laundry and presser,
(613)	elevator operator, etc.
	PRODUCTION AND PROCESSING
	PROCESSING OF FOOD AND BEVERAGES
	processing machine operators and production workers in food and
(821) 822)	beverage processing plants, dairies, meat packing plants, canneries, flour and grain mills
	PROCESSING AND ASSEMBLY OF MATERIALS AND GOODS
(811)	workers in cutting, molding, machining, shaping, forming, lubricating & finishing of metal, wood, plastic, rubber, glass and paper, etc.

	PRODUCTION OF WEARING APPAREL
	tailor, dressmaker, shoemaker, furrier, milliner, etc.
(855) 856)	OTHER PROCESSING OCCUPATIONS
(829)	workers in textiles, tobacco and hide and pelt occupations
(029)	TECHNICAL TRADES, EQUIPMENT AND TRANSPORTATION
	METAL MACHINING
(831)	tool and die makers, machine tool operations, etc.
	METAL SHAPING AND FORMING
(833)	forgers, sheet metal workers, welders, platers and structural metal workers, etc.
	MECHANICAL, ELECTRICAL, CONSTRUCTION AND REPAIR TRADES
(087)	electrician, T.V. and radio repairmen, computer and electronics maintenance workers, mechanic plumber, carpenter, plasterer, watchmaker, decorator, railway section man, power lineman, aircraft mechanic and repairman, etc.
	PRINTING AND COMMUNICATIONS EQUIPMENT
(095)	typesetter, printer, engraver, bookbinder, telegraph operator, sound, video, radio & television broadcasting equipment operator, cameraman, motion picture projectionist, etc.
	TRANSPORTATION EQUIPMENT, OPERATING, DELIVERY & MATERIALS HANDLING
(091)	air pilots, captain, conductor, taxi, bus & truck driver, locomotive engineer, hoist operator, mailman, packer, longshoreman, etc.
	OCCUPATIONS NOT ELSEWHERE CLASSIFIED
	Other
(099)	(Please specify)
	er having gone over the above list of occupations do you feel your
ansı	wer to question 29 has changed in any way?
	Yes

No

35.	your present programme or field of study?
	☐ Before ☐ After
	Have not chosen my career yet
36.	What was most influential in your choice of occupation?
	Job opportunities
	Occupational choice influenced by programme of study
	Guidance counsellors, teachers
	Family, friends
	Do not know
	Have not made my career choice yet
	Other(specify)
37.	How strong would you say the relationship is between your choice of programme and your occupational choice?
	Education is essential to the job
	Education is useful but not essential
	Education is unrelated
	Do not know
	Have not made my occupational choice yet

THANK YOU FOR YOUR COOPERATION

Table 9

Intended Occupation (1st Choice) of Graduating University Students By Programme of Study and Sex

Programme		Arts and	Science	aor		Commerce	rce		Busir	Business Administration	istra	ation		Engineering	ring	
pation		×		(h		M		Įtų '		M		[±4		M	Ţ	
Not Seeking Employment (NSE)	3	(42.9%)	2	(8.3%)	0	-	2	(28.6%)	7 ((25.9%)	2 ((%2.99)	14	(18.4%)	1 (3	(33.3%)
Managerial, Administrative and Related Occupations (11)	0	ı	0	ı	14	(77.8%)	3	(42.9%)	8	(29.6%)		(33.3%)	0	1	0	ı
Natural Sciences, Engineering and Mathematics (21)	Н	(14.3%)		(4.2%)	-	(2.6%)	0	1.0,4	3 ((11.1%)	0	1	53	(%2.69)	1 (3	(33.3%)
Social Sciences and Related Fields (23)	2	(28.6%)	12	(20.03)	Н	(2.6%)	0	, I	Н	(3.7%)	0	1.	0	ı	0	1
Teaching and Related Occupations (27)	П	(14.3%)	9	(25.0%)	0	i	0	Į.	0	ı	0	. I ₃	40	(1.3%)	0	1
Medicine and Health (31)	0	át.	0	1	0	ı	0	1 7300	0	1	0	1,	0	ı	0	ı
Artistic, Literary, Performing Arts and Related Occupations (33)	0	i Trauki	0	1	0	1	0		m	(3.7%)	0		rs al rer	(1.3%)	.5 0	1
Clerical and Related Occupations (41)	0	111	0	1	0	4.	0	1	0	ı	0	1	0	ky:	0	1
Sales Occupations (51)	0	1	0	1	2	(11.1%)	-	(14.3%)	3	(11.1%)	0	1.	0	1	0	1
Service Occupations (61)	0	,45	0	; 	0	i	0	I Non-	0	ı	0	1,	0	ı	0	ı
Farming, Horticultural and Animal-Husbandry (71)	0	1	0	r, 1	0	ř	0	1	2 0	ı	60	1 1	0	.1	.0	ı
Fishing, Hunting, Trapping and Related Occupations (73)	0	, t- ,	0	5 ()* -1	0		0	1	0	ı	0	ı	, 0	d.;	0.0	ı
Forestry and Logging (75)	0	e.P	0	:	0	1	0		-	(3.7%)	0	1	0	1,	0	ı
Mining and Quarrying (77)	0	1	0	ı	0	1	0	1	0	1	0	. "	0	1,	0	1
Processing Occupations (81/82)	0	1	0	ŀ	0	1	0	ı	0	· 1	0		0	1.	0	ı
Machining and Related Occupations (83)	0	ı	0	1	0.	11	0	1	0	1	0	est T	Ô	ı	0	1
Product Fabricating, Assembling and Repairing (85)	0	1	0	,	0	í	0	1	0	1 -	.0	4	0 .	, 1,	0	ŧ
Construction Trades (87)	0	ı	0	1	0	ı	0	1	0	k'	0	1	4	(5.3%)	0	ı
Transport Equipment Operating (91)	0	ı	0	í	0.	Je s	0	1	0	ı	0	1	0		0	ı
Other Crafts and Equipment Operating (95)	0	ı	0	1	0	ı	,	!	0	1	0	1	0	ı	. 0	1
Occupations Not Elsewhere Classified (99)	0	ı	0	1	0	ı		(14.3%)	3	(11.1%)	0	ı	0	ı	0	1
No Information (NI)	0	ı	0	1	0	1	0	ı	0	ı	0	ı	-	(1.3%)	0	1
Not Applicable (NA)	0	ì	e	(12.5%)	0	ı	0	ı	0	1	0	ı	7	(2.6%)	1	(33.3%)
Total	7	(100.0%)	24	(100.0%)	18 ((100.0%)	7	(100.0%)	27 (1	(100.0%)	3 (1	(100.0%)	76 ((100.0%)	3 (10	(100.0%)

Table 9 (continued)

		Forestry	try			Nursing	ng		Phys.	s. Ed and	д Нез	Health		Teaching	ng		T	Library S	Science	e	To	Tota1	
		×		Įź.		×		[ži		×		ĮΞų		М		Ľτι		M		ĺΞι	Z	60	
(NSE)	6	(11.5%)	0	1	0	1	2	(85.6)	11	(27.9%)	6	(40.9%)	0	ı	0	ı	0	1	Н	(12.5%)	63	(13.2%)	
(11)	1	(1.3%)	0	1	0	ı	0	ı	0	1	0	í	0	1	0	1	0	1	0	ı	27	(2.1%)	
(21)	3	(3.9%)	1	(7.1%)	0	ı	0	ı	0	1	0	1	0	1	0	1	0	1	0	ı	49	(13.4%)	
(23)	0	1	0	1	0	ı	0	1	0	ı	0	1	0	i	-	(1.4%)	0	1	5	(62.5%)	22	(4.6%)	
(27)	0	ı	0	1	0	1	9	(14.3%)	5	(26.3%)	œ	(36.4%)) 92	(%2.86)) 19	(%4.4%)	0	1	0	ı	167	(35.0%)	
(31)	0	1	0	1	2 ()	(%0.001	91	(76.2%)	0	ı	0	ı	0	ı	1	(1.4%)	0	ı	0	ı	19	(3.0%)	
(33)	2	(2.6%)	0	ı	0	1	2	(10.5%)	4	(18.2%)	0	į	0	1	-	(1.4%)	0	ı	0	ı	11	(2.3%)	
(41)	0	1	0	ŀ	0	ı	0	1	0	1	0	í	0	ı	0	ı	0	1	0	i	ı	ı	
(51)	0	ı	0	1	0	å	0	1	0	ı	0	ı	0	ı	0	1	0	1	0	1	9	(1.3%)	
(61)	0	ı	0	1	0	1	0	ı	7	(5.3%)	0	ı	0	ı	0	ı	0	1	0	1	1	(0.2%)	
(71)	0	ı	2	(14.3%)	0	1	0	ı	0	1	1	(4.6%)	0	ı	0	ı	0	ı	0	1	3	(0.6%)	
(73)	2	(2.6%)	0	ı	0	ı	0	ı	0	1	0	ı	0	ı	П	(1.4%)	0	ı	0	ı	3	(0.6%)	
(75)	09	(76.9%)	10	(71.4%)	0	1	0	1	0	ı	0	ı	0	1	0	ı	0	ı	0	1	71	(14.9%)	
(77)	0	ı	Н	(7.1%)	0	ı	0	1	0	ı	0	ı	0	ı	0	ı	0	1	0	1	-	(0.2%)	
(81/82)	0	1	0	ı	0	1	0	1	0	ı	0	ı	0	1	0	1	0	1	0	ı	ı	ı	
(83)	0	1	0	1	0	1	0	ı	0	ı	0	1	0	ı	0	1	0	1	0	1	1	1	
(85)	0	1	0	i	0	1	0	ì	0	ı	0	1	0	ı	0	ı	0	ı	0	1	ŧ	ı	
(87)	0	ı	0	ı	0	i	0	1	0	1	0	1	0	ı	0	ı	0	ı	0	ı	4	(0.8%)	
(91)	0	1	0	1	0	1	0	1	0	1	0	ı	0	1	0	ı	0	ı	0	1	ı	ı	
(95)	0	ı	0	ì	0	ı	0	1	0	ı	0	ı	0	ı	0	ě	0	ı	0	1	i	F	
(66)	0	ı	0	1	0	1	0	1	0	ı	0	1		(1.3%)	0	ı	0	1	0	i	2	(1.0%)	
(NI)	-	(1.3%)	0	1	0	ı	0	1	0	1	0	1	0	ı	0	1	0	1	0	ı	2	(0.4%)	
(NA)	0	ı	0	1	0	1	0	ı	0	1	0	ı	0	ı	0	ŀ	0	1	2	(25.0%)	00	(1.7%)	
																			- 1				
Total	78 (78 (100.0%)		14 (100.0%)	2 ((100.0%)	21 ((100.0%)	19 ((100.0%)	22 ((100.0%)	77 ((100.0%)	71 ((100.0%)	1	ı	8	(100.0%)	477	(100.0%)	

Intended Programme of Study.	Arts	and S	Arts and Science		Comn	Commerce		Bus	Business Administration	ninist	ration		Engineering	ering	200
Industry	M		Ħ		M		ĹΉ		M		H		M		[H
Agriculture (1)	1 (14.3%)		1	1	ı	ı		1	1	1					
Forestry (2)	1		1	1	ı	ŧ	1	-	(3 7%)	1		1	I	t	ı
Fishing and Trapping (3)	1		1	1	1	1	1	4 1	(%) - 1	1		1	ı	ı	ı
Mines, Quarries and Oil Wells (4)	1		1	-	1	1	1	1	ı				(69 6)	1	I
Manufacturing Industries (5)	1		ı	4	(20.0%)	1	(20.0%)	3	11.1%)	1	ı	2 7	(%0.2)		(33 3%)
Construction Industry (6)	1		1	1	1	ı	1	, H	(3.7%)	- 1	ı	1 1 ~~	(%0.15)	- ı	(%5.55)
Transportation, Communication and Other Utilities (7)	T E		1		(2.0%)	ı	ı	1	1	1	1	17	(22.4%)	1	t t
Trade (8)	1		ł	ı	ı	1	ı	2	(7.4%)	ı	1	ı			
Finance, Insurance, and Real Estate (9)	1		1	3	(15.0%)	ı	1	2	(7.4%)	H	(33.3%)	1	1	1	1 1
Community, Business and Personal Service Industries (10)	3 (42.9%)) 17	7 (70.8%)	7.	(25.0%)	3	(%0.09)) 9	(22.2%)	1	1	4	(5.3%)	1	ı
Public Administration and Defence (11)	1		2 (8.3%)	m	(15.0%)	1	1	7	(3.7%)	1	ı	2	(2.6%)	- 1	ı
No Information (NI)	1		1	2	(10.0%)	1	1	1	1	ŀ	1	Ľ	(6 6%)		
Undecided (UN)	1		1	1	1	1	ı	П	(3, 7%)	1	1) (°	(%0.0)		1 1
Not Applicable (NA)	3 (42.9%)		5 (20.8%)	2	(10.0%)	1 ((20.02)	10 ((37.0%)	2	(%2.99)	16	(21.1%)		(%2.99)
, , , , , , , , , , , , , , , , , , ,	1000	+													
lotal	7 (100.0%)	24	(100.0%)	20 (20 (100.0%)	5 (1	(100.0%)	27 (10	(100.0%)	3 (1	(100.0%)	76 (1	(100.0%)	3 (1	(100.0%)

	-															
Total		(*4%)	(16.4%)	(.2%)	(%9°)	(7.3%)	(*8*)	(4.0%)	(%4°)	(1.3%)	(48.2%)	(2.1%)	(1.9%)	(1.1%)	(15.3%)	(100.0%)
		2	78	Н	3	15	7	19	2	9	230	10	6	2	73	477
ence	ĬZ4	ı	1	1	ı	ı	1	ı	ı	ı	(62.5%)	1	1	ı	(37.5%)	8 (100.0%)
Sci		1	1	1	1	1	1	1	1	1	2	1	1	1	3	∞
Library Science	M	1	ı	ı	1	ı	ı	ı	ı	ı	ı	i	ı	ı	ı	ı
		1	ı	ı	ı	1	ı	1	1	1	1	1	1	ı	1	1
	Ħ		1	ı	1	1	1	(1.4%)	ı	1	(97.2%)	ı	,1	(1.4%)	1	71 (100.0%)
hing		1	ŧ	i	ı	ı	i	1	ı	ı	69	1	1	П	1	71 (
Teaching	M	(1.3%)	ı	ı	1	1	1	ı	ı	1	(98.7%)	ı	1	ı	ı	77 (100.0%)
			ı	1	1	1	1	ı	ı	ı	9/	ì	1	1	t	77 (
leal th	Œ	- 1	- 1	ı	1	1	1	1	ı	1	(26.5%)	(8.7%)	1	ı	(34.8%)	(100.0%)
and I		- 1	ı	1	1	1	1	1	1	ı	13	2	1	1	00	23 (
Phys. Ed. and Health	M	1	1	ı	ŀ	1	ı	ı	1	ı	(38.9%)	ı	1	1	(61.1%)	(100.0%)
<u>P</u>		ı	í	1	ı	ı	- 1	ı	ı	-1	7	1	-1	-1	11	18
	ĒΈι	1	1	ı	ı	1	ı	ı	1	ı	(80.5%)	ı	ı	ı	(8.5%)	(100.0%)
Nursing		1	4	1	1	1	1	ŧ	F	1	119	1	- 1	1	2	21
Nur	М	1	1	1	1	1	1	1	1	1	2 (100.0%)	ı	1	1	1	2 (100.0%)
		1	1	1	-	-	1	1	ŀ		2		1	- 1	1	<u> </u>
	H	ı	(92.9%)	1	(7.1%)	ı	ı	1	1	1	ı	1	1	1	ı	(100.0%)
Forestry		1	13	١	П	1	ı	1	1	- 1	1	ŀ	1	1	ł	14
Fore	M	1	(82.1%)	(1.3%)	ı	(2.6%)	1	1	ı	ı	(1.3%)	1	(2.6%)	1	(10.3%)	Total 78 (100.0%) 14 (100.0%)
		1	79	Н	- 1	2	1	1	1	- 1	П	1	2	1	∞	78
		(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(NI)	(UIN)	(NA)	Total

Table 11

Location of Expected Job of Graduating University Students By Programme of Study And Sex

ring	ഥ		1	1	1	t f	1	1	1 (33.3%)	1	1	2 (66.7%)	3 (100.0%)
Engineering	M		5 (21.1%)	7 (9.2%)	10 (13.2%)	1	1	1 (1.3%)	24 (31.6%)	1 (1.3%)	1 (1.3%)	16 (21.1%)	76 (100.0%)
tion	[Fi		16	1 (33.3%)	- 1	1	1	ı	2	1	ı	2 (66.7%) 1	3 (100.0%) 7
Administration	M		3 (11.1%)	6 (22.2%)	2 (7.4%)	1	l l	1	5 (18.5%)	1	1	11 (40.7%)	27 (100.0%)
e	[m		2 (40.0%)	2 (40.0%)	1	1	1	1		1		1 (20.0%) 1	5 (100.0%) 2
Commerce	M		6 (30.0%)	8 (40.0%)	2 (10.0%)		1	ı	2 (10.0%)		1	2 (10.0%)	20 (100.0%)
ience	[24		12 (50.0%)			1	1	1 (4.2%)	2 (8.3%)		1	5 (20.8%)	24 (100.0%) 2
Arts and Science	×		1 (14.3%) 1		†	1	1		(1)	(%(:24)		3 (42.9%)	7 (100.0%) 2
Programme of	Intended Study	הכמברות	Ustrates N U O (A)		Western Provinces1 (C)	Northern Canada ² (D)	Ouchoo (E)	quenec (E)	Atlantic Provinces (F)	Wherever Can find Job (5)	Outside Canada (H)	No Information (1) Not Applicable (J)	

 $^{\rm 1}{\rm Manitoba},$ Saskatchewan, Alberta, and British Columbia.

 $^{\rm 2}{\rm The}$ Yukon and Northwest Territories.

 3 Newfoundland, Prince Edward Island, Nova Scotia, and New Brunswick.

Table 11 (continued)

		_										-
	Total	(47 78)	(10.5%)	(7.1%)	(0.4%)	(%6.7%)	(0.8%)	(30.2%)	(0.4%)	(0,6%)	(15.3%)	(100.0%)
		164	20	34	2	-	1 4	144	2	CC.	73	477
ciences	Į.	2 (25.0%)		1	ı	1	1	3 (37.5%)	. 1	1	3 (37.5%)	8(100.0%)
Library Sciences	M	1	ł	1	1	1	1	1	1	1	1	1
ling	Œ	37 (52.1%)	5 (7.0%)	1 (1.4%)	1 (1.4%)	1 (1.4%)	1	25 (35.2%)	1 (1.4%)	1	1	71(100.0%)
Teaching	М	34 (44.2%)	8 (10.4%)	1 (1.3%)	1	1	1	33 (42.9%)	1	1 (1.3%)	1	77(100.0%)
ind Health	H	2 (9.1%)	3 (13.6%)	2 (9.1%)	. 1	F.	1	7 (31.8%)	1	1	8 (36.4%)	22(100.0%)
Phys. Ed. and Health	M	1	2 (10.5%)	2 (10.5%)	1	1	1 (5.3%)	4 (21.1%)	ı	1	10 (52.6%)	19(100.0%)
lursing	Ē-	15 (71.4%)	1 (4.8%)	1 (4.8%)	1	1	1	2 (9.5%)	1	ı	2 (9.5%)	21(100.0%) 19(100.0%)
Nur	M	1 (50.0%)	1	1	1	1	1	1 (50.0%)	1	1	1	2(100.0%)
Forestry	[F4	2 (14.3%)	1 (7.1%)	1 (7.1%)	1 (7.1%)	1	1	9 (64.3%)	1	1	1	14(100.0%)
Fore	N	31 (39.7%)	5 (6.4%)	9 (11.5%)	1	1	1 (1.3%)	23 (29.5%)	1	1 (1.3%)	8 (10.3%)	78(100.0%)
		(A)	(B)	(0)	(D)	(E)	(F)	(D)	(H)	(I)	(7)	Total

Table 12

Intended Occupation (1st Choice) of Craduating CAAT Students By Programme of Study and Sex

Programme		Applied	Arts			Health So	Science	0		Nursing	lng			Business	88	
Intended Of Study		M		Ľ4		M		[Eq.		×		E4		M		[24
Not Seeking Employment (NSE)	000	(25.0%)	4	(5.2%)	1		2	(4.9%)		(33.3%)	2	(3.3%)	7	(24.1%)	4	(8.2%)
Managerial, Administrative and Related Occupations (11)	1	ı	ł	ı	1	ı	1	1	1	1	1	ı	_∞	(27.6%)	6	(18.4%)
Natural Sciences, Engineering and Mathematics (21)	1	ı	1	1	1	ı	1	1	1	1	ł	1	2	(%6.9%)		(2.0%)
Social Sciences and Related Fields (23)	2	(15.6%)	27	(35.1%)	1	ł	ŧ	ł	1	ı	ı	1	1	1	ī	ı
Teaching and Related Occupations (27)	33	(8,4%)	22	(28.6%)	1	1	ı	í	1	1	H	(1.7%)	1	1	i	1
Medicine and Health (31)	1	ı	,H	(1.3%)	2	(100.0%)	39	(95.1%)	2	(66.7%)	27	(82.0%)	ŧ	1	ı	ı
Artistic, Literary, Performing Arts and Related Occupations (33)	9	(18.8%)	11	(14.3%)	ı	1	1	1	1	ı	1	ı	1	1	1 -	ı
Clerical and Related Occupations (41)	ı	ı	ı	1	1	use	1	1	ī	ı	1	ı	1	1	4	(8.2%)
Sales Occupations (51)	ı	1	ı	ı	ı	ı	1	ı	1	ı	1	í	6	(31.0%)	27	(55.1%)
Service Occupations (61)	9	(18.8%)	6	(11.7%)	1	ı	1	1	i	ı	1	ı	c	(10.3%)		(2.0%)
Farming, Horticultural and Animal-Husbandry (71)	ı	1	1	ı	1	ı	1	1	ı	I	1	ı	1	ı	F	ı
Fishing, Hunting, Trapping and Related Occupations (73)	ı	ı	1	ı	ı	1	ı	1	1	ı	ł	ı	ì	ı	1	ı
Forestry and Logging (75)	ì	1	ı	ı	ı	1	1	ı	t	,	1	1	ı	ı	ı	ŀ
Mining and Quarrying (77)	1	ı	1	ı	1	I	1	1	1	ı	ı	ı	1	ł	1	ı
Processing Occupations (81/82)	t"	1	10	ı	1	1	1	1	ı	1	ı	ı	I	ŀ	ı	ŧ
Machining and Related Occupations (83)	1	1	1	ı	ł	ı	f	1	1	1	I	ı	i	1	1	ı
Product Fabricating, Assembling and Repairing (85)	1	1	1	ı	1	ı	1	1	1	1	1	1	1	ı	1	1
Construction Trades (87)	1	1	1	ı	1	ι	1	ı	ı	1	1	1	1	t	-	(2.0%)
Transport Equipment Operating (91)	ŧ	1	1	1	ı	ı	ı	ı	Ł	1	1	ı	ı	ı	1	ı
Other Crafts and Equipment Operating (95)	-	(3.1%)	-	(1.3%)	1	1	1	ı	1	ŧ	1	1	1	ı	1	ı
Occupations Not Elsewhere Classified (99)	2	(6.3%)	-	(1.3%)	1	ı	ŀ	ı	1	ı	1	ı	1	ì	2	(4.1%)
No Information (NI)	ı	ı	1	1	1	1	1	ı	1	ı	1	ŀ	1	1	1	ı
Not Applicable (NA)		(3.1%)		(1.3%)	ı	ł	1	I	1	ı	ł	1	1	ı	1	I
Total	32 (32 (100.0%)	77	(100.0%)	2	(100.0%)	41	(100.0%)	3	(100.0%)	09	(100.0%)	29	(100.0%)	64	(100.0%)

Table 12 (continued)

Programme Programme of Study		Secre	Secretarial		A	Aviation Technology	echno1c	gy	Engineering Technology	ing Te	chnology	T	Total
Occupation		M		Ħ		М	Ħ		M		Į	Z	2%
Not Seeking Employment (NSE)	ı		7	(11.7%)	2	(5.3%)	1	1	3 (6.4%)		1	40	(9.1%)
Managerial, Administrative and Related Occupations (11)	1	1	П	(1.7%)	1	ı	ı	ı	1		i	18	(4.1%)
Natural Sciences, Engineering and Mathematics (21)	. 1	ı	ı	ľ	1	(2.6%)	1	1	9 (19.2%)		1 (100.0%)	14	(3.2%)
Social Sciences and Related Fields (23)	ı	i	н.	(1.7%)	1	ı	F	1	1		1	33	(7.5%)
Teaching and Related Occupations (27)	1	ı	1	1	1	1	ı	ı	1		1	26	(5.9%)
Medicine and Health (31)	1	ŧ	Н	(1.7%)	1	ı	ı	1	1		1	102	(23.2%)
Artistic, Literary, Performing Arts and Related Occupations (33)	ı	ı	ı	1	ı	ı	ι	ı	1		1	17	(3.9%)
Clerical and Related Occupations (41)	1	ı	20	(83.3%)	ı	ı	1	1	1			54	(12.3%)
Sales Occupations (51)	ı	1	1	1	i	1	1	ě	ı		1	36	(8.2%)
Service Occupations (61)	ı	ı	1	1	1	1	ı	1	1		ı	19	(4.3%)
Farming, Horticultural and Animal-Husbandry (71)	ı	1	1	ı	ı	ı	ě	1	1		1	1	1
Fishing, Hunting, Trapping and Related Occupations (73)	ı	ı	ı	ı	i	ı	1	1	1		\$	ı	1
Forestry and Logging (75)	1	1	ı	ı	ì	ı	ı	ı	1		ı	ı	1
Mining and Quarrying (77)	ı	ı	ı	ı	1	ı	ł	ı	1		1	1	1
Processing Occupations (81/82)	1	1	ł	ı	1	ŧ	ı	ı	4 (8.5%)	(%	1	4	(%6.0)
Machining and Related Occupations (83)	ı	1	1	ı	ı	1	ı	ı	7 (14.9%)		ı	7	(1.6%)
Product Fabricating, Assembling and Repairing (85)	1	ı	1	ı	1	ı	1	ı	1	•	1	t	ı
Construction Trades (87)	1	ı	1	ı	34	(89.5%)	ı	ı	19 (40.4%)		ı	54	(12.3%)
Transport Equipment Operating (91)	ı	1	1	1	ı	ı	ı	1	2 (4.3%)	(%	1	2	(0.5%)
Other Crafts and Equipment Operating (95)	ı	ı	1	ı	ı	. 1	ı	1	1 (2.1%)	(%	1	m	(0.7%)
Occupations Not Elsewhere Classified (99)	1	ı	1	ı	1	1	1	1	1 1		1	5	(1.1%)
No Information (NI)	ı	ł	1	1	1	ı	1	1	1 (2.1%)		1	Н	(0.2%)
Not Applicable (NA)	ı	ı	ı	1	\leftarrow	(2.6%)	1	1	1 (2.1%)	· .	1	4	(%6°0)
Total	1	1	09	(100.0%)	38 ((100.0%)	1	1	47 (100.0%)		1 (100.0%)	439	(100.0%)

 $\label{eq:table 13} \mbox{Intended Industry of Graduating CAAT Students Programme of Study and Sex}$

Programme Intended of Study		Applied Arts	ed Aı	ts		Health Science	Scie	nce		Nur	Nursing			Busi	Business	
Industry		×		ĺΤι		M		Ē		M		E		×		Į.,
Agriculture (1)	'	1		1	1											
Forestry (2)	1	ı	1	ŧ	- 1	1	ı	1	-			I	1 -	1 0	ı	ı
Fishing and Trapping (3)	-	í	1	ı	- 1	ı	1	1	t	1 (1 1	1		(3.6%)	t	1
Mines, Quarries and Oil Wells (4)	1	i	1	1	I	ı	1	ı	- 1	ı	- 1	1 1	ı -	(3.6%)	1 1	1 1
Manufacturing Industries (5)	1	ı	1	I	- 1	1	ı	1	- 1	ı	1	ı	1		1	(2.0%)
Construction (6)	1	1	ı	1	-1	ı	1	ı	1	1	1	ı	1	1	(1	
Transportation, Communication and Other Utilities (7)	ε	(6.4%)	9	(7.8%)	1	ı	ı	ŧ	1	ı	щ	(1.7%)	-	(3.6%)	1	1
Trade (8)	1	1	1	1	1	ı	ı	1	- 1	1	- 1	ı	~	(10 7%)	c	(1, 0%)
Finance, Insurance, and Real Estate (9)	ı	ŧ	1	ı	1	ı	ı	ı	- 1	ı	ı	1) -	(3.6%)	7 2	(4.0%)
Community, Business and Personal Service Industries (10)	12	(37.5%)	57	(74.0%)	2	(100.0%)	39	(95.1%)	3	(100.0%)	57	(92.0%)	13	(46.4%)	33	(86.0%)
Public Administration and Defence (11)	9	(18.8%)	00	(10.4%)	1	ı	ı	ı	1	1	1	1	1	ı	2	(4.0%)
No Information (NI)	2	(6.3%)		(1.3%)	- 1	1	1	ı	- 1	1	- 1	ı	_	(3, 6%)	4	(12 0%)
Not Applicable (NA)	6	(28.1%)	5	(6.5%)	ı	1	2	(4.9%)	ı	1	2	(3.3%)	7	(25.0%)	2 4	(8.0%)
Total	32	(100.0%)	77	(100 0%)	0	(100 0%)	7.1	(100 001)		100 00 1	-					
				(100.001)	1	(TOO.OV)	T +	(TOO.0%)	2	(100.0%)	09	(100.0%)	28	(100.0%)	20 ((100.0%)

Table 13 (continued)

Programme Intended of Study		Secre	Secretarial		Av	Aviation Technology	echnolc	gy	Eng	Engineering Technology	Techno	ology	Tol	Total
Industry		M		Ē4		M	Ţ			M		[II.	z	%
Agriculture (1)	1	1	1	1	1	1	1	1	1	1	1	1	,	1
Forestry (2)	1	1	1	ŀ	1	1	ı	1	1	1	ı	1		(%0 0%)
Fishing and Trapping (3)	1	1	ı	1	1	1	- 1	ı	1	1	- 1	1	1	(0/3-)
Mines, Quarries and Oil Wells (4)	ı	1	1	1	1	1	F	1	1	1	1	1	-	(0.2%)
Manufacturing Industries (5)	1	1	n	(2.0%)	10	(26.3%)	1	1	15	(31.9%)	ı	1	29	(8.6%)
Construction (6)	ł	ı	ı	ı	ı	1	ı	1	5	(10.6%)	1	1	5	(1.1%)
Transportation, Communication and Other Utilities (7)	ı	ı	ı	ı	26	(88.4%)	ı	ı	20	(42.6%)	1	(100.0%)	58	(13.2%)
Trade (8)	1	ı	2	(3.3%)	ı	1	ı	1	1	1	ı	1	7	(1.6%)
Finance, Insurance, and Real Estate (9)	ı	ı	3	(2.0%)	1	ı	1	ı	1	ı	1	ı	9	(1.4%)
Community, Business and Personal Service Industries (10)	ı	ı	27	(45.0%)	1	ı	ı	ı	П	(2.1%)	1	i	244	(25.6%)
Public Administration and Defence (11)	ı	ı	1	ı	1	1	1	ı	1	1	1	1	16	(3.6%)
No Information (NI)	ı	ı	18	(30.0%)	1	ı	ı	1	2	(4.3%)	1	1	30	(8.8%)
Not Applicable (NA)	ı	ı	7	(11.7%)	2	(2.3%)	1	ı	4	(8.5%)	1	ı	42	(8.6%)
Total	1	ı	09	(100.001)	38 ((100.0%)	ı	1	47 ((100.0%)	1 ((100.0%)	439	(100.0%)
				The same of the sa	-									

	Total	(42.8%)	(8.6%)	(8.3%)	(0.2%)	(0.9%)	(1.4%)	(24.8%)	(2.3%)	(1.8%)	(8.8%)	(100.0%)
	Ĭ	188	29	41	П	4	9	109	10	∞	43	439
Technology	Ħ	1(100.0%)	1	1.	ı	ı	I I	1	1	1	i I	1(100.0%)
Engineering Technology	Ж	20 (42.6%)	1 (2.1%)	11 (23.4%)	l	1	l I	9 (19.2%)	1 (2.1%)	1 (2.1%)	4 (8.5%)	47(100.0%)
echnology	ţĦ	1	1	1	ı	1	ł	1	ı		1	-
Aviation Technology	M	10 (26.3%)	10 (26.3%)	5 (13.2%)	1	3 (7.9%)	1 (2.6%)	5 (13.2%)	1	2 (5.3%)	2 (5.3%)	38(100.0%)
and Bus.	Ħ	60 (55.1%)	5 (4.6%)	12 (11.0%)	I I	1 (0.9%)	2 (1.8%)	14 (12.8%)	1 (0.9%)	2 (1.8%)	12 (11.0%)	109(100.0%)
Sec. Arts	М	8 (27.6%)	1 (3.5%)	4 (13.8%)	1 (3.5%)	1	1 (3.5%)	7 (24.1%)	1	i	7 (24.1%)	29(100.0%) 109(100.0%)
Health Sc.	ĬΞ	37 (36.6%)	5 (5.0%)	(2.9%)	I	1	1 (1.0%)	39 (38.6%)	8 (7.9%)	1 (1.0%)	(%0.4) 4	101(100.0%)
Nursing and Health Sc.	æ	3 (60.0%)	l t	ı	1	1	1	2 (40.0%)	I I	1	1	5(100.0%)
Applied Arts	[T4	40 (51.3%)	7 (9.0%)	2 (2.6%)	1	1	1	23 (29.5%)	1	1 (1.3%)	5 (6.4%)	78(100.0%)
Applie	ж	9 (29.0%)	1	1 (3.2%)	1	1	1 (3.2%)	10 (32.3%)	1 .	1 (3.2%)	9 (29.0%)	31(100.0%)
Programme	Intended Study Location and Job	Within N.W.O.	Other Ontario	Western Provinces1	Northern Canada ²	Quebec	Atlantic 3 Provinces 3	Wherever Can Find Job	Outside Canada	No Information	Not Applicable	Total

 $[\]boldsymbol{1}_{\text{Manitoba}},$ Saskatchewan, Alberta, and British Columbia.

 $^{^2{\}rm The\ Yukon}$ and Northwest Territories.

 $^{^{\}rm 3}{\rm Newfoundland},$ Prince Edward Island, Nova Scotia, and New Brunswick.

Intended Occupation of Graduating University Students By Programme of Study

Total	(6.7%)	(15.8%)	(5.4%)	(41.2%)	(%6.4)	(2.7%)	(1.5%)	(0.3%)	(0.7%)	(0.7%)	(17.5%)	(0.3%)	(1.0%)	(1.2%)	4051(100.0%)
Ĭ	27	99	22	167	20	11	9	н	6	e	71	Н	7	5	402
Library		170	5(100.0%)	1	1	1	ı	1	1	1	1	1	1	1	5(100.0%)
Teaching	ı	l i	1 (0.7%)	143 (96.6%)	1 (0.7%)	1 (0.7%)	1	ı	1	1 (0.7%)	1	1	1	1 (0.7%)	148(100.0%)
Physical Education and Health	l I	1	ı	13 (61.9%)	i	6 (28.6%)	1	1 (4.8%)	1 (4.8%)	1	1	1	1	1	21(100.0%)
Nursing	1	-1	1	3 (14.3%)	18 (85.7%)	1	1	1	1	1	1	1	1	î.	21(100.0%)
Forestry	1 (1.2%)	(4.9%)	ı	1	1	2 (2.4%)	1	1	2 (2.4%)	2 (2.4%)	70 (85.4%)	1 (1.2%)	1	1	82(100.0%)
Engineering	l I	54 (90.0%)	ı	1 (1.7%)	1	1 (1.7%)	1	1	1	1	i	1	4 (6.7%)	ı	60(100.0%)
Business Adminis- tration	.9 (42,9%)	3 (14.3%)	1 (4.8%)	1	1	1 (4.8%)	3 (14.3%)	1	1	1	1 (4.8%)	1	1	3 (14.3%)	21(100.0%)
Commerce	17 (73.9%)	1 (4.4%)	1 (4.4%)	1	1	1	3 (13.0%)	į	-1.	1	1	1	1	1 (4.4%)	23(100.0%)
Arts and Science	l l	2 (8.3%)	14 (58.3%)	7 (29.2%)	1 (4.2%)	1	1	1	1	l,	í	1	1	1	24(100.0%)
Intended of Study Occupation	Managerial, Adminis- trative and Related Occupations	Natural Sciences, Engineering and Mathematics	Social Sciences and Related Fields	Teaching and Related Occupations	Medicine and Health	Artistic, Literary, Performing Arts and Related Occupations	Sales Occupations	Service Occupations	Farming, Horti- cultural and Animal- Husbandry	Fishing, Hunting, Trapping and Related Occupations	Forestry and Logging	Mining and Quarrying	Construction Trades	Occupations Not Elsewhere Classified	Total

 $^{^{1}\}mathrm{Excludes}$ 72 graduating students who were in the following categories: Not Seeking Employment, Not Applicable, or No Information.

Table 16
Intended Occupation of Graduating CAAT Students
By Programme of Study

/			-													
Intended Programme Of Study Occupation		Applied Arts	H Sc	Health Science	Nur	Nursing	Bus	Business	Secre	Secretarial	Av	Aviation Technology	Engin	Engineering Technology	To	Total
Managerial, Administrative and Related Occupations	1	1	1	ı	1	1	17	(25.4%)	н	(1.9%)	1	1	1	1	18	(4.6%)
Natural Sciences, Engineering and Mathematics	ı	1	1	1	ı	1	6	(4.5%)	1	1	Н	(2.9%)	10	(23.3%)	14	(3.6%)
Social Sciences and Related Fields	32	(33.7%)	1	1	1	ı	1	1	Н	(1.9%)	1	1	1	ı	33	(8.4%)
Teaching and Related Occupations	25	(26.3%)	1	ı	П	(1.7%)	1	- 1	1	1	ı	1	1	ı	26	(6.6%)
Medicine and Health	П	(1.1%)	41	(100.0%)	59	(98.3%)			П	(1.9%)				1	102	(25.9%)
Artistic, Literary, Performing Arts and Related Occupations	17	(17.9%)	E 1 3	ı	1	1	1	J	1	1	1	ı	1	1	17	(4.3%)
Clerical and Related Occupations	1	1	1	t		ı	4	(%0.9)	50	(94.3%)	1	ı	1	1	54	(13.7%)
Sales Occupations	1	ı	1	1	1	1	36	(53.7%)	1	1	1	1	1	1	36	(9.1%)
Service Occupations	15	(15.8%)	1	1	1	1	4	(%0.9)	1	1	1	. 1	1	ı	19	(4.8%)
Processing Occupations	1	1	1	1	1	1	ı	ı	1	1	1	1	4	(6.3%)	4	(1.0%)
Machining and Related Occupations	1	1	1	ı	1	1	1	1		1	1	1	7	(16.3%)	7	(1.8%)
Construction Trades	1	1	1	1	1	1	-	(1.5%)	1	1	34	(97.1%)	19	(44.2%)	54	(13.7%)
Transport Equipment Operating	1	1	ı	1	1	ı	1	ı	-1	1	1	1	2	(4.7%)	2	(0.5%)
Other Crafts and Equipment Operating	2	(2.1%)	=1	1	1	ı	1	1	-1	1	1	ı	-	(2.3%)	3	(0.8%)
Occupations Not Elsewhere Classified	e	(3.2%)	1	1	ı	1	2	(3.0%)	1	,	1	1	1	1	2	(1.3%)
Total	95 (1	(100.0%)	41 ((100.0%)	60 (1	(100.0%)) 19	(100.0%)	53 ((100.0)	35	(100.0%)	43 ((100.0%)	3941	(100.0%)
I Froludes (1) eraduating students who	ob etudo	r cho	M Owor	Not Continue	-		,									

Excludes 40 graduating students who were Not Seeking Employment, 4 in the Not Applicable category, and one for whom no information was available.

Northwestern Ontario Manpower Adjustment Study

Component Studies

- 1. An Economic History of Northwestern Ontario
- 2. Projections of Labour Supply by Occupation in Northwestern Ontario, to 1981
- rio, 000 1079
- 3. Projections of Enrolment and Graduations from Secondary and Post-Secondary Institutions in Northwestern Ontario, to 1981
- 4. Labour Market Intentions of Graduating Students from Post-Secondary Institutions in Northwestern Ontario
- Projections of Total Labour Force in Northwestern Ontario, to 1981
- 6. Results of a Manpower Survey of the Mineral and Forest Products Industries in Northwestern Ontario
- 7. Projections of Manpower Requirements by Occupation and Industry for Northwestern Ontario, to 1981
- 8. Aspects of Migration in Northwestern Ontario, 1966-71
- 9. Why People Move from Northwestern Ontario
- 10. Labour Turnover and Absenteeism in Selected Industries:
 Northwestern Ontario and Ontario

Project Directors



Ministry of Labour

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